Ecotox Report

PMN No. P-18-0032

Report Status: Completed

Status Date: 11/03/2017

CRSS Date: 11/06/2017

SAT Date: 11/07/2017

Ecotox Assessor: [redacted]

Ecotox Related Cases:	[redacted]
Health Related Cases:	[redacted]

SAT chair:	[redacted]	CBI:	○ Yes ○ No
Submitter:	US Paint Corp.	CAS Number:	[redacted]
Chemical Name:	[redacted]		
Use:	[redacted]		
Trade Name:	KHF-033	PV - max (kg/yr):	[redacted]

Fate Summary Statement:

P-18-0032
FATE: [redacted]
Solid
S = Negl.
VP < 1.0E-6 torr at 25 °C (E)
BP > 400 °C (E)
H < 1.00E-8 (E)
POTW removal (%) = [redacted]
Time for complete ultimate aerobic biodeg > mo
Sorption to soils/sediments = v.strong
PBT Potential: P3B1
*CEB FATE: Migration to ground water = negl

PMN Material:
Overall wastewater treatment removal is [redacted]
Sorption to sludge is strong based on high molecular volume.
Air Stripping (Volatilization to air) is negligible based on high molecular volume.
Removal by biodegradation in wastewater treatment is negligible based on high molecular volume.
The aerobic aquatic biodegradation half-life is greater than months based on high molecular volume.
The anaerobic aquatic biodegradation half-life is greater than months based on the aerobic biodegradation half-life. The anaerobic biodegradation half-life is projected to be greater or equal to the aerobic biodegradation half-life.
Sorption to soil and sediment is very strong based on high molecular volume.
Migration to groundwater is negligible based on high molecular volume.
PMN Material:
High Persistence (P3) is based on the anaerobic biodegradation half-life and high molecular volume.
Low Bioaccumulation potential (B1) is based on high molecular volume.
Bioconcentration/Bioaccumulation factor to be put into E-Fast: N/A

Physical Chemical Information

Molecular Weight:	[redacted]	Physical state - Neat:	Solid (Est.)		
Wt % < [redacted]	[redacted]	Wt % <1000:	[redacted]		
Melting Point:		Melting Point (est):		MP (EPI):	
Vapor Pressure:		Vapor Pressure (est):	<0.000001	VP (EPI):	
Water Solubility:		Water Solubility (est):	<0.000001	Water Solubility (EPI):	
Log Kow				Log Kow (EPI):	
Clog P:					

SAT Concern Level:

Factor	Value		
Ecotox Rating (1):	1	Ecotox Rating Comment (1):	
Ecotox Rating (2):		Ecotox Rating Comment (2):	
Ecotox Routes of Exposure:	● No releases to water ○ All releases to water		

Ecotox Comments:

Exposure Based Review (Eco): ○ Yes ● No
Testing Recommendations:

PBT Ratings:

Persistence	Bioaccumulation	Toxicity	Comments
3	1	1	

Fate Ratings:

Removal in WWT/POTW (Overall): 90

Condition	Rating No.	Rating Description				Comments
		1	2	3	4	
Fish BCF:						
Log Fish BCF:						
WWT/POTW Sorption:	3	Low	Moderate	Strong	V. Strong	
WWT/POTW Stripping:	4	Extensive	Moderate	Low	Negligible	
Biogradation Removal:	4	Unknown	High	Moderate	Negligible	
Biogradation Destruction:		Unknown	Complete	Partial	--	
Aerobic Biodeg Ult	4	<=Days	Weeks	Months	>Months	
Aerobic Biodeg Prim		<=Days	Weeks	Months	>Months	
Anaerobic Biodeg Ult:	4	<=Days	Weeks	Months	>Months	

Anaerobic Biodeg Prim:		<=Days	Weeks	Months	>Months	
Hydrolysis (t1/2 at pH 7,25C) A:		<=Minutes	Hours	Days	>=Months	
Hydrolysis (t1/2 at pH 7,25C) B:		<=Minutes	Hours	Days	>=Months	
Sorption to Soils/Sediments:	1	V. Strong	Strong	Moderate	Low	
Migration to Groundwater Potential:	1	Negligible	Slow	Moderate	Rapid	
Photolysis Direct:		Negligible	Slow	Moderate	Rapid	
Photolysis Indirect:		Negligible	Slow	Moderate	Rapid	
Atmospheric Oxidation OH:		Negligible	Slow	Moderate	Rapid	
Atmospheric Oxidation O3:		Negligible	Slow	Moderate	Rapid	

Bio Comments:

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Ecotoxicity Values:

Test Organism	Test Type	Test End Point	Predicted	Measured	Comments
Fish	96-h	LC50	*		
Daphnid	48-h	LC50	*		
Green algae	96-h	EC50	*		
Fish	--	Chronic Value	*		
Daphnid	--	Chronic Value	*		
Green algae	--	Chronic Value	*		
Sewage sludge	3-h	EC50	--		
Sewage sludge	--	Chronic Value	--		

Ecotox Value Comments:

Predictions are based on SARs for anionic polymers; [redacted] acid monomer; solid (est.) with an unknown MP (P); effective concentrations based on 100% active ingredients and mean measured concentrations; hardness <150 mg/L as CaCO3; and TOC <2.0 mg/L.

Ecotox Factors

Factors	Values	Comments
Assessment Factor	5/10	
Concentration of Concern (ppb) - Acute Value		*
Concentration of Concern (ppb) - Chronic Value		*
SARs	Anionic Polymers	
SAR Class	Polymer-anionic-[redacted] anion-insoluble	
TSCA New Chemical Category	Polyanionic Polymers (& Monomers)	

Ecotox Factors Comments:

Environmental Hazard: Environmental hazard is relevant to whether a new chemical substance is likely to present unreasonable risks because the significance of the risk is dependent upon both the hazard (or toxicity) of the chemical substance and the extent of exposure to the substance. EPA estimated environmental hazard of this new chemical substance using hazard data on analogous chemicals. Based on these estimated hazard values, EPA concludes that this chemical substance has low environmental hazard.
· Substance falls within the TSCA New Chemicals Category of Polyanionic Polymers.
· SAR chemical class of Polymer-Anionic-insoluble
· [redacted]
· Low hazard based on an estimate of no effects at saturation.

Environmental Risk:
· Risks were not identified for ecotoxicity.
· No testing is recommended.

Attachments

Initial Review Reports

Chemistry Report	Created by [redacted] on 11/06/2017
Fate Report	Created by [redacted] on 11/06/2017
Ecotox Report	Created by [redacted] on 11/03/2017
Human Health Rpt	Created by [redacted] on 11/07/2017
SAT Report	Created by [redacted] on 11/03/2017
Focus Report	Created by [redacted] on 11/15/2017

Comments and/or Telephone Log:

Include Attachment

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